

OIPE
APR 16 2005
PATENT & TRADEMARK OFFICE

Sheet 1 of 1 (4/14/05)

Form PTO-1449		ATTY. DOCKET NO. 0020-5146P	APPLICATION NO. 10/609,503
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		APPLICANT Yoshinori SHIMIZU et al.	
		FILING DATE July 1, 2003	GROUP 2879

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
AW	US 4,644,223		1987-02-17	de Hair et al.			
AW	US 6,538,371	B1	2003-03-25	Duggal et al.			
	US						
	US						
	US						
	US						
	US						
	US						
	US						
	US						

FOREIGN PATENT DOCUMENTS

Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
EP	0 500 937	A1	1992-09-02	EUROPE			X	
JP	2001-320094	A	2001-11-16	JAPAN			Abs	

OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)

AW	Sato et al. "Full-Color Fluorescent Display Devices Using a Near-UV Light-Emitting Diode", Japanese Journal of Applied Physics, vol. 35, July 1, 1996, pp. L838-L839.

EXAMINER <i>Joseph Williams</i>	DATE CONSIDERED <i>4/24/05</i>
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449		ATTY DOCKET NO. 0020-5146	APPLICATION NO. New-Rule 53(b) Div. of 09/458,024
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <small>(Use several sheets if necessary)</small>		APPLICANT Yoshinori SHIMIZU et al.	
		FILING DATE July 1, 2003	GROUP 2879

U.S. PATENT DOCUMENTS

EXAMINER'S INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
GW	US 3,652,956		1972-03-28	Pinnow et al.			
GW	US 4,314,910		1982-02-09	Barnes			
GW	US 5,006,908		1991-04-09	Matsuoka et al.			
GW	US 5,369,289		1994-11-29	Tamaki et al.			

FOREIGN PATENT DOCUMENTS

Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
JP	59-30107	U	1984-02-24	JAPAN				X
JP	7-32638	U	1995-06-16	JAPAN			X	
JP	01-257993	A	1989-10-16	JAPAN			ABS	
JP	01-260707	A	1989-10-18	JAPAN			ABS	
JP	02-111922	A	1990-04-24	JAPAN			ABS	
JP	05-142424	A	1993-06-11	JAPAN			X	
JP	06-160635	A	1994-06-07	JAPAN			X	
JP	06-027327	A	1994-02-04	JAPAN			X	
JP	06-82633	A	1994-03-25	JAPAN			X	

OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)

GW	"White LED lamp: Efficient light-emitting; Manufacture cost half", Nikkei Sangyo Shimbun, September 13, 1996, Published by Nihon Keizai Shimbunsha.
GW	Shuji NAKAMURA, "InGaN/AlGaN blue-light-emitting diodes", J. Vac. Sci. Technol. A 13(3), May/Jun 1995, pp. 705-710.
GW	Shuji NAKAMURA et al., "Si-Doped InGaN Films Grown on GaN Films", Jpn. J. Appl. Phys. Vol. 32 (1993), pp. L16-L19, Part 2, No. 1A/B, 15 January 1993.
GW	Shuji NAKAMURA et al., "P-GaN/N-InGaN/N-GaN Double-Heterostructure Blue-Light-Emitting Diodes", Jpn. J. Appl. Phys. Vol. 32 (1993), pp. L8-L11, Part 2, No. 1A/B, 15, January 1993.
GW	Shuji NAKAMURA, "Zn-doped InGaN growth and InGaN/AlGaN double-heterostructure blue-light-emitting diodes", Journal of Crystal Growth, 145 (1994), pp. 911-917. <i>no month</i>
GW	Shuji NAKAMURA, "High-Power InGaN/AlGaN Double-Heterostructure Blue-Light-Emitting Diodes", IEDM 94 (1994), IEEE, pp. 567-570. <i>no month</i>
GW	Kozo OSAMURA et al., "Preparation and optical properties of Ga _{1-x} In _x N thin films", Journal of Applied Physics, Vol. 46, No. 8, August 1975, pp. 3432-3437.

<i>Joseph W. Wallison</i>	DATE CONSIDERED 12/6/04
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.R.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449		ATTY DOCKET NO. 0020-5146	APPLICATION NO. New-Rule 53(b) Div. of 09/458,024						
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		APPLICANT Yoshinori SHIMIZU et al.							
		FILING DATE July 1, 2003	GROUP 2879						
U.S. PATENT DOCUMENTS									
EXAMINER INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE		
	US								
	US								
	US								
				FOREIGN PATENT DOCUMENTS					
	Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
								YES	NO
<i>dw</i>	JP	07-114904	A	1995-05-02	JAPAN			X	
<i>dw</i>	JP	07-235207	A	1995-09-05	JAPAN			X	
<i>dw</i>	JP	53-7153		1978-01-21	JAPAN				X
<i>dw</i>	JP	7-42152	U	1995-07-21	JAPAN				X
<i>dw</i>	JP	55-4898	A	1980-01-14	JAPAN				X
<i>dw</i>	JP	55-005533	A	1980-01-16	JAPAN			ABS	
<i>dw</i>	JP	60-185457	A	1985-09-20	JAPAN			ABS	
<i>dw</i>	JP	62-20237	A	1987-01-28	JAPAN				X
<i>dw</i>	JP	62-232827	A	1987-10-13	JAPAN				X
OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)									
<i>dw</i>	Takashi MATSUOKA et al., "Growth and Properties of a Wide-Gap Semiconductor InGaN", Optoelectronics-Devices and Technologies, Vol. 5, No. 1, pp.53-64, June 1990.								
<i>dw</i>	T. NAGATOMO et al., "Ga _{1-x} In _x N Blue Light-Emitting Diodes", Proc. Electrochem. Soc., 1993, Vol. 93-10, pp. 136-141. no month								
<i>dw</i>	G. BLASSE et al., "Investigation of Some Ce ³⁺ -Activated Phosphors", Journal of Chemical Physics, Vol. 47, No. 12, 15 December 1967.								
<i>dw</i>	W.W. HOLLOWAY, Jr. et al., "On The Fluorescence of Cerium - Activated Garnet Crystals", Physics Letters, Vol. 25A, No. 8, 23 October 1967, pp. 614-615.								
<i>dw</i>	E.F. GIBBONS et al., "Some Factors Influencing the Luminous Decay Characteristics of Y ₃ Al ₅ O ₁₂ :Ce ³⁺ ", J. Electrochem. Soc., Vol. 120, No. 6. no year , no month								
<i>dw</i>	W.J. MINISCALCO et al., "Measurements of Excited-State Absorption in Ce ³⁺ :YAG ²⁺ ", J. Appl. Phys. Vol. 49, No. 12, December 1978, pp. 6109-6111.								
<i>dw</i>	D.J. ROBBINS et al., "Lattice Defects and Energy Transfer Phenomena in Y ₃ Al ₅ O ₁₂ :Ce ³⁺ ", pp. 1004-1013. no year , no month								
EXAMINER	<i>Derek Willis</i>				DATE CONSIDERED				12/6/04
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									

Form PTO-1449		ATTY DOCKET NO. 0020-5146	APPLICATION NO. New-Rule 53 (b) Div. of 09/458,024						
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <small>(Use several sheets if necessary)</small>		APPLICANT Yoshinori SHIMIZU et al.							
		FILING DATE July 1, 2003	GROUP 2879						
U.S. PATENT DOCUMENTS									
EXAMINER INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE		
	US								
	US								
	US								
	US								
	US								
	US								
	US								
	US								
FOREIGN PATENT DOCUMENTS									
EXAMINER INITIAL	Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
								YES	NO
JKW	JP	01-189695	A	1989-07-28	JAPAN			ABS	
JKW	JP	07-120754	A	1995-05-12	JAPAN			X	
JKW	JP	06-177423	A	1994-06-24	JAPAN			X	
JKW	JP	7-99345	A	1995-04-11	JAPAN			X	
JKW	JP	09-027642	A	1997-01-28	JAPAN			X	
JKW	JP	05-63068	U	1993-08-20	JAPAN			X	
JKW	EP	0 209 942	A1	1987-01-28	EPO				
JKW	EP	0 541 373	A2	1992-11-05	EPO				
JKW	EP	0 599 224	A1	1994-06-01	EPO				
OTHER DOCUMENTS <small>(Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposia, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.)</small>									
M.F. YAN et al., "Preparation of $Y_3Al_5O_{12}$ -Based Phosphor Powders, J. Electrochem. Soc., Vol. 134, No. 2. no year									
JKW "Nichia Chemical starts the sample shipment of white light emitting diode", News Report, translation of page 15 of Nikkei Electronics 1996.9.23 (No. 671).									
"Proceedings of the Institute of Phosphor Society", Translation of pages 1, 5 to 14 of the 26 th Proceedings of the Institute of Phosphor Society. no year									
Shigeo SHIONOYA et al. (editors), "Phosphor Handbook", pp. 505-508, CRC Press. no year									
EXAMINER <i>Joseph W. Cullen</i>					DATE CONSIDERED 12/6/04				
<small>EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.R.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>									

Form PTO-1449		ATTY DOCKET NO. 0020-5146P	APPLICATION NO. Rule 53(b) Div. of 09/458,024				
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <small>(Use several sheets if necessary)</small>		APPLICANT Yoshinori SHIMIZU et al.					
		FILING DATE July 1, 2003	GROUP 2879				
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
GW	US 4,727,283		1988-02-23	van Kemenade et al.			
GW	US 4,298,820		1981-11-03	Bongers et al.			
GW	US 3,699,478		1972-10-17	Pinnow et al.			
GW	US 5,798,537		1998-08-25	Nitta			
GW	US 5,202,777		1993-04-13	Sluzky et al.			
GW	US 3,819,974		1974-06-25	Stevenson et al.			
GW	US 5,847,507		1998-12-08	Butterworth et al.			
GW	US 3,691,482		1972-09-12	Pinnow et al.			
	US						
FOREIGN PATENT DOCUMENTS							
Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION
							YES
JP	01179471	A	1989-07-17	JAPAN			ABS
JP	5043913	C1	1975-04-21	JAPAN			
JP	554898	A	1980-01-14	JAPAN			
JP	09027642	A	1997-01-28	JAPAN			ABS
JP	08007614	A	1996-01-12	JAPAN			ABS
JP	07176794	A	1995-07-14	JAPAN			ABS
JP	07099345	A	1995-04-11	JAPAN			ABS
JP	05152609	A	1993-06-18	JAPAN			ABS
JP	6220237	A	1987-01-28	JAPAN			
OTHER DOCUMENTS (Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)							
GW	Glasse et al., Applied Physics Letters, Vol. 11, No. 2, pp. 53-54 (1967) no month						
GW	Hoffman, Journal of Ies, pp. 89-91 (1977) no month						
GW	Nakamura, SPIE, Vol. 3002, pp. 26-35 (1997) no month						
GW	"SIMENS SMT-TOPLED fur die Oberflachenmontage" Frank Mollmer et al. Simens Components, 29 (1991) Hfet 4. no month						
EXAMINER	Asymy William			DATE CONSIDERED	12/6/04		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with N.P.B.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO-1449		ATTY DOCKET NO. 0020-5146	APPLICATION NO. New-Rule 53(b) Div. of 09/458,024
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <small>(Use several sheets if necessary)</small>		APPLICANT Yoshinori SHIMIZU et al.	
		FILING DATE July 1, 2003	GROUP 2879

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
ANV	US 4,550,256		1985-10-29	Berkstesser et al.			
ANV	US 4,716,337		1987-12-29	Huiskes et al.			
ANV	US 5,471,113		1995-11-28	De Backer et al.			
	US						
	US						
	US						
	US						
	US						
	US						

FOREIGN PATENT DOCUMENTS

Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
ANV	WO 9750132	A1	1997-12-31	PCT				
ANV	WO 9812757	A1	1998-03-26	PCT				
ANV	JP 5079379		1973-11-24	JAPAN			ABS	
ANV	JP 742152		1995-07-21	JAPAN			ABS	
ANV	JP 4717684		1972-09-09	JAPAN			X	
ANV	JP 491221		1974-01-12	JAPAN			X	
ANV	JP 49112577		1974-10-26	JAPAN			ABS	
ANV	JP 62189770		1986-02-15	JAPAN			ABS	
ANV	JP 291980		1988-09-29	JAPAN			ABS	

OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.)

ANV	"GaNpn Contact Blue/Ultraviolet light Emitting Diode", H. Amano et al., Applied Physics, Vol. 20, No. 2, pp. 163-166 (1991) no month
ANV	"Phosphors Based on Rare-Earths, A New Era in Fluorescent Lighting", B.M.J. Smets, Materials Chemistry and Physics, 16 pp. 283-299 (1987) no month
ANV	"A New Phosphor for Flying-Spot Cathode-Ray Tubes for Color Television: Yellow Emitting..", G. Blasse et al., App. Phys. Lett. Vol. 11, No. 2, pp. 53-55 (1967) no month
ANV	Tadao MIURA, ELECTRONICS ENGINEERING, "High-intensity White Backlighting for LCD of Car Audios", July 1996, Vol. 38, No. 7, pp. 55-58

EXAMINER <i>Joseph V. Allian</i>	DATE CONSIDERED <i>12/6/04</i>
EXAMINER: Initial if citation considered, whether or not citation is in conformance with 37 C.F.R. 1.59; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449		ATTY DOCKET NO. 0020-5146	APPLICATION NO. New-Rule 53 (b) Div. of 09/458,024				
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <small>(Use several sheets if necessary)</small>		APPLICANT Yoshinori SHIMIZU et al.					
		FILING DATE July 1, 2003	GROUP 2879				
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	US						
	US						
	US						
	US						
	US						
	US						
	US						
	US						
FOREIGN PATENT DOCUMENTS							
Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION
							YES
JP	5152609	A	1993-06-18	JAPAN			ABS
JP	5183189	A	1993-07-23	JAPAN			ABS
JP	863119		1996-03-08	JAPAN			ABS
JP	10036835	A	1998-02-10	JAPAN			ABS
JP	49106283		1972-12-27	JAPAN			ABS
JP	5245181		1977-10-14	JAPAN			ABS
GB	1589964		1981-05-20	GREAT BRITAIN			
JP	5441660		1979-12-05	JAPAN			X
JP	5472484		1978-11-07	JAPAN			ABS
OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)							
✓	J.M. Robertson, et al., "Colourshift of the Ce ⁺ Emission in Monocrystalline Epitaxially Grown Garnet Layers", 1981 Philips J. Res. 36, pp. 15-30 no month						
✓	W.W. Holloway, Jr. et al., "Optical Properties of Cerium-Activated Garnet Crystals", 1969 Journal of the Optical Society of America, Vol. 59, No. 1, pp. 60-63 no month						
✓	WUSTLICH MIKRO-/OPTO-ELEKTRONIK GMBH (1994/1995) no month						
EXAMINER	Signature			DATE CONSIDERED	12/6/04		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.R.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

FORM PTO-1449		ATTY DOCKET NO. 0020-5146	APPLICATION NO. New-Rule 53(b) Div. of 09/458,024					
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		APPLICANT Yoshinori SHIMIZU et al.						
		FILING DATE July 1, 2003	GROUP 2879					
U.S. PATENT DOCUMENTS								
EXAMINER INITIAL	DOCUMENT NUMBER	KIND	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE	
	US							
	US							
	US							
	US							
	US							
	US							
	US							
	US							
	US							
FOREIGN PATENT DOCUMENTS								
Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
JP	5950455		1984-04-01	JAPAN			ABS	
JP	324692		1991-03-14	JAPAN			ABS	
JP	463162		1992-05-29	JAPAN			ABS	
JP	463163		1992-05-29	JAPAN			X	
JP	563068		1993-08-20	JAPAN			ABS	
JP	8170077		1996-07-02	JAPAN			ABS	
JP	5331584		1978-03-24	JAPAN				
JP	60144381		1985-07-30	JAPAN			ABS	
JP	62167387		1987-07-23	JAPAN			ABS	
OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)								
EXAMINER <i>Joseph W. Cullinan</i>	DATE CONSIDERED 12/7/04							
EXAMINER: Initial if citation considered, whether or not citation is in conformance with N.P.R.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

Form PTO-1449		ATTY DOCKET NO. 0020-5146	APPLICATION NO. New-Rule 53(b) Div. of 09/458,024
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <small>(Use several sheets if necessary)</small>		APPLICANT Yoshinori SHIMIZU et al.	
		FILING DATE July 1, 2003	GROUP 2879

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	Kind	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	US						
	US						
	US						
	US						
	US						
	US						
	US						
	US						
	US						

FOREIGN PATENT DOCUMENTS

Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
JP	60144381		1985-07-30	JAPAN			ABS	
JP	62167387		1987-07-23	JAPAN			ABS	
JP	6208845		1994-07-26	JAPAN			ABS	
JP	06177423		1994-06-24	JAPAN			ABS	
JP	06260680		1994-09-16	JAPAN			ABS	
JP	06268257		1994-09-22	JAPAN			ABS	

OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)

EXAMINER <i>Joseph W. Chien</i>	DATE CONSIDERED 12/7/04
EXAMINED: Initial if citation considered. Whether or not citation is in conformance with 37 C.F.R. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	